

BANGALORE UNIVERSITY

DEPARTMENT OF CIVIL ENGINEERING

JNANA BHARATHI
BANGALORE - 560 056

BUB/CTE/2019-20/

Date: 05-09-2019

1. TESTING OF FINE & COARSE AGGREGATES:

Sub: Testing of Fine & Coarse Aggregates.

{Project*: Construction of U Shape Drain to SWD at across beside St Clarant School in Ward No.16, of Jalahalli of RR Nagara Zone}

Ref: Letter No. Testing/BUB/2019-20, dated 31-08-2019

Sample supplied to lab by : Sri.B.G.Srinivas, Contractor,
Bangalore.

Report required for : Assistant Executive Engineer,
SWD, RR Nagara Zone,
BBMP, Bangalore.

TABLE - 1.1 : SIEVE ANALYSIS : FINE AGGREGATE

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2007)				Remarks
		Percentage Passing				
		Zone-I	Zone-II	Zone -III	Zone -IV	
10.00	100.00	100	100	100	100	The Sample Conforms to Grading Zone-II
04.75	95.60	90-100	90-100	90-100	95-100	
02.36	87.00	60-95	75-100	85-100	95-100	
01.18	74.30	30-70	55-90	75-100	90-100	
600. mic	48.00	15-34	35-59	60-79	80-100	
300.mic	21.05	5-20	8-30	12-40	15-50	
150.mic	7.60	0-10	0-10	0-10	0-15	

Table - 1.1 : SIEVE ANALYSIS : 40 MM COARSE AGGREGATE

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2002)	
		% Passing	
	40 mm Sample	Single size	Graded
40mm	97.00	85-100	95 - 100
20mm	48.00	0 -20	30- 70
10mm	23.10	0 -5	10- 35
4.75mm	Nil	-----	0 - 5

*As Furnished by Client.

The Results relate only to the items tested.

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JNANA BHARATHI
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BUB/CTE/2019-20/Steel

Date: 05-09-2019

1. TEST REPORT ON REINFORCEMENT STEEL:

Sub: Testing of Reinforcement Steel of diameter 10, 12, 16mm.

{Project*: Construction of U Shape Drain to SWD at across beside St Clarant School in Ward
No.16, of Jalahalli of RR Nagara Zone}

Ref: Letter No. Testing/BUB/2019-20, dated 31-08-2019

Sample supplied to lab by : Sri.B.G.Srinivas, Contractor,
Bangalore.

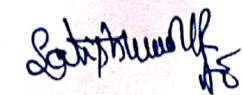
Report required for : Assistant Executive Engineer,
SWD, RR Nagara Zone,
BBMP, Bangalore.

TABLE - 1

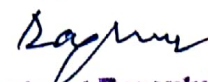
SL No	Details	For 10 mm		For 12mm		For 16mm	
		Test Results	Min. Req as per IS 1786-2008	Test Results	Min. Req as per IS 1786-2008	Test Results	Min. Req. as per IS 1786-2008
01	Observed diameter of bar	10.0mm	10.0mm	12.0mm	12.0mm	16.0mm	16.0 mm
02	Observed Wt/m Length Kg/m	0.624	0.567	0.892	0.834	1.583	1.483
03	Proof stress/Yield stress, f_y , N/mm ²	556.0	500.0	560.0	500.0	555.0	500.0
04	Bend/ Re bend Test	Ok	---	Ok	---	Ok	---
05	Percentage of Elongation, %	21.40	12.00	19.50	12.00	20.40	12.00
06	Ultimate Tensile Strength N/mm ²	622.0	545.0	638.0	545.0	6260	545.0

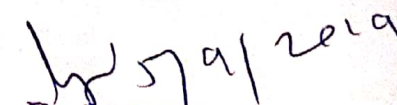
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JNANA BHARATHI
BANGALORE - 560 056

BUB/CTE/2019-20/Cement

Date: 09-09-2019

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).

{Project*: Construction of U Shape Drain to SWD at across beside St Clarant School in Ward No.16, of Jalahalli of RR Nagara Zone}

Ref: Letter No. Testing/BUB/2019-20, dated 31-08-2019

Sample supplied to lab by : Sri.B.G.Srinivas, Contractor,
Bangalore.

Report required for : Assistant Executive Engineer,
SWD, RR Nagara Zone,
BBMP, Bangalore.

PHYSICAL TESTS ON CEMENT

Brand* : Birla Super
Grade * : 53
Type * : OPC
Date : 01-09-2019 to 08-09-2019

SL No	Name of Test	Results	Requirements as per IS 12269-1987
		Cement Sample	
1	Initial setting time	148 min	Shall not be less than 30 min
2	Final setting time	260min	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	2.80%	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	1.60 mm	Shall not be more than 10 mm
5	Compressive strength		
	a) 3 days (average of three results) b) 7 days (average of three results)	29.60 N/ Sq mm 41.70 N/Sq mm	Shall not be less than 27 N/Sqmm Shall not be less than 37N/Sqmm

*As Furnished by Client.

The Results relate only to the items tested.

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JNANA BHARATHI
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BUB/CTE/2019-20/Cube

DATE: 21-09-2019

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07 days Compressive Strength)

{Project*: Construction of U Shape Drain to SWD at across beside St Clarant School in Ward
No.16, of Jalahalli of RR Nagara Zone}

Ref: Letter No. Testing/BUB/2019-20, dated 20-09-2019

Sample supplied to lab by : Sri.B.G.Srinivas, Contractor,
Bangalore.

Report required for : Assistant Executive Engineer,
SWD, RR Nagara Zone,
BBMP, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE
CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M₂₅

Location* : Raft Concrete.

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in Mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
1	001	13-09-19	20-09-19	07	22500	460	20.44	20.89
	002	"	"	"	"	480	21.33	
	003	"	"	"	"	470	20.89	

*As furnished by Client.

The Results relate only to the items tested.



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JNANA BHARATHI
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BUB/CTE/2019-20/Cube

DATE: 11-10-2019

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07 days Compressive Strength)

{Project*: Construction of U Shape Drain to SWD at across beside St Clarant School in Ward
No.16, of Jalahalli of RR Nagara Zone}

Ref: Letter No. Testing/BUB/2019-20, dated 11-10-2019

Sample supplied to lab by : Sri.B.G.Srinivas, Contractor,
Bangalore.

Report required for : Assistant Executive Engineer,
SWD, RR Nagara Zone,
BBMP, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE
CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M₂₅

Location* : Raft Concrete.

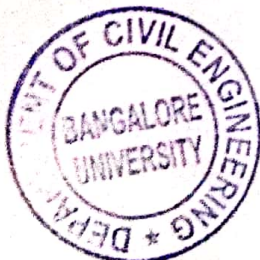
TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in Mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
1	001	13-09-19	11-10-19	28	22500	590	26.22	27.56
	002	"	"	"	"	650	28.89	
	003	"	"	"	"	620	27.56	

*As furnished by Client.
The Results relate only to the items tested.

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JNANA BHARATHI
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BUB/CTE/2019-20/Cube

DATE: 18-10-2019

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28 days Compressive Strength)

{Project*: Construction of U Shape Drain to SWD at across beside St Clarant School in Ward
No.16, of Jalahalli of RR Nagara Zone}

Ref: Letter No. Testing/BUB/2019-20, dated 17-10-2019

Sample supplied to lab by : Sri.B.G.Srinivas, Contractor,
Bangalore.

Report required for : Assistant Executive Engineer,
SWD, RR Nagara Zone,
BBMP, Bangalore.

**RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE
CUBE SPECIMENS**

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M₂₅

Location* : Wall Concrete.

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in Mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
1	001	19-09-19	17-10-19	28	22500	640	28.44	28.00
	002	"	"	"	"	620	27.56	
	003	"	"	"	"	630	28.00	

*As furnished by Client.

The Results relate only to the items tested.

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